



Borough of Chatham.

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*Medical Officer's*

AND

*Sanitary Inspector's*


REPORTS

1913.

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LONDON:

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# Borough of Chatham.



TO THE MAYOR AND CORPORATION.

GENTLEMEN,—

The Report which I have the honour to present for your consideration deals with the various conditions affecting the sickness and mortality of the Borough during the year ending December 31st, 1913. The subject matter is arranged as in previous Reports, and follows the lines laid down in the Memorandum of the Local Government Board relating to Annual Reports of Medical Officers of Health.

On the whole a satisfactory rate of progress can be noted, and the Members of the Council are well aware of the comprehensive and far-reaching character of the work of the Health Department. The Death Rate tends to diminish, a gradual improvement in the sanitary circumstances of the district is being brought about, housing conditions are receiving special attention, the machinery for dealing with Infectious Diseases, including Tuberculosis, is becoming more effective, and the long-talked-of scheme of Main Drainage has now assumed a practical shape. Its completion will take some years, but its inauguration will stimulate the progress of the district, and at the same time remove a long standing reproach.

Adversely, individual sense of responsibility is lacking, and the education of the public in matters of general hygiene, infant management, and personal habits is greatly needed. They have yet to learn that in the maintenance of health and vigour, personal habits have a greater influence than surroundings, and that whilst much illness is avoidable in spite of defective drains and houses, on the other hand sanitary perfection counts for little if the personal habits are bad. Ignorance, prejudice and apathy are the greatest obstacles to progress.

Matters which are specially commented upon in the ensuing pages are the application of Bacteriology in combating Infectious Disease, Tuberculosis, Infantile Mortality, the treatment of Measles, the use of Antitoxin in Diphtheria, the subject of Housing, and the methods of dealing with Household Refuse.

In February, Dr. Manby, of the Local Government Board, visited the Borough, and during three days made an exhaustive inquiry and inspection with respect to the question of Housing and General Sanitation. The visit was of very great assistance to myself, and has enabled me to deal more effectively and confidently with problems respecting which I had some doubt as to the extent to which the support of the Local Government Board would be forthcoming. Two

of Dr. Manby's recommendations were immediately put in force, viz., the provision of an extra Inspector, and an increase in the cubic capacity per head in Registered Common Lodging Houses. With respect to Housing Reform, that is a work of time, but a great deal has been accomplished during 1913, details of which appear in the Report. My thanks are due to your Council for their never-failing support in this branch of work.

Special attention has been paid to the supervision of food, and the Council has given facilities to one Inspector to acquire a certificate of competency as a Meat Inspector.

For the records of Rainfall I am indebted to Mr. Coles Finch, and to the members of the Sanitary Committee and the Staff in my department for their loyal help and co-operation.

I am, Gentlemen,

Your obedient servant,

J. HOLROYDE, F.R.C.S., D.P.H..

Medical Officer of Health.

Chatham,

February 23rd. 1914.



TABLE I.

CHATHAM DISTRICT.

Vital Statistics of Whole District during 1913 and previous Years.

YEAR.	Popula- tion estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncor- rected Number.	Nett.		Number.	Rate	of Non- residents registered in the District.	of Resi- dents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	...	1038	1038	25.5	578	14.2	62	42	132	127	558	13.7
1909	...	1093	1093	26.5	538	13.	63	42	117	107	517	12.5
1910	...	1052	1052	25.2	522	13.2	83	41	96	92	510	12.2
1911	...	1066	1114	26.3	668	15.8	76	78	142	127	670	15.8
1912	...	1027	1066	24.8	576	13.4	91	78	123	115	563	13.1
1913	...	1109	1138	26.	591	13.6	82	65	117	103	574	13.2

Area of District in acres (land and inland water).

4443.298

Total Population at all ages, 42,250

Number of inhabited houses, 9562

Average number of persons per house, 4.4

At Census, 1911.

TABLE II.

## CHATHAM DISTRICT.

*Cases of Infectious Disease notified during the Year 1913.*

NOTIFIABLE DISEASE.	Number of Cases Notified.								Total Cases Notified in each Locality.				Total Cases removed to Hospital.
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 & upwards.	ST. MARV'S.	LUTON.	ST. JOHN'S.	MEDWAY.	
Small-Pox ... ..													
Diphtheria (including Membranous croup) ... ..	140		30	101	5	4			39	52	49		92
Erysipelas ... ..	30	1		2	2	8	16	1	8	11	11		
Scarlet Fever ... ..	96	1	23	68	1	3			18	45	33		64
Enteric ... ..	8			3	3	2			6	1	1		6
Puerperal Fever ... ..	1					1					1		
Poliomyelitis ... ..	1		1						1				
Pulmonary Tuberculosis ... ..	106		2	17	18	44	25		25	40	28	13	
Other Forms of Tuberculosis ... ..	42	1	5	22	9	5			8	24	10		
TOTALS...	424	3	61	213	38	67	41	1	105	173	133	13	162



TABLE III.

## CHATHAM DISTRICT.

*Causes of, and Ages at Death during the Year 1913.*

CAUSE OF DEATH.			Nett Deaths at the Subjoined Ages of Residents whether occurring within or without the District.									Total deaths whether of Residents or non- Residents in the Insti- tutions in the district.
			All Ages.	Under 1.	1 to 2.	2 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	
All Causes	Certified ...	...	561	113	28	23	22	24	73	119	159	
	Uncertified	...	13	4					4		5	
Enteric Fever ... ..			2					1	1			
Measles ... ..			10	2	4	4						
Scarlet Fever ... ..			1			1						
Whooping Cough ... ..			4	2	1	1						
Diphtheria and Croup... ..			8			5	3					
Influenza ... ..			1								1	
Erysipelas ... ..			1	1								
Phthisis (Pulmonary Tubercu- losis) ... ..			56		1	3	4	9	21	17	1	21
Tuberculous Meningitis ... ..			8	1			4	1	2			
Other Tuberculous Diseases ... ..			14		4	3		1	1	3	2	3
Cancer, malignant disease ... ..			44						7	25	12	18
Rheumatic Fever ... ..			1					1				
Meningitis ... ..			1	1								
Organic Heart Disease ... ..			84	1			1	3	9	22	48	51
Bronchitis ... ..			32	6	2		1		1	6	16	14
Pneumonia (all forms) ... ..			31	8	6		3	1	4	4	5	5
Other diseases of respiratory organs ... ..			2			1					1	
Diarrhoea and Enteritis ... ..			22	15	3	1	3					
Appendicitis and Typhlitis ... ..			1			1						
Cirrhosis of Liver ... ..			5						1	3	1	
Alcoholism ... ..			3						1	2		
Nephritis and Bright's Disease ... ..			23						5	9	9	
Other accidents and diseases of Pregnancy and Parturition... ..			7	2				1	4			1
Congenital Debility and Malfor- mation, including Premature Birth ... ..			58	55	3							2
Violent Deaths, excluding Suicide ... ..			19	6	1		1	1	3	4	3	4
Suicide ... ..			5					1	2	2		
Other Defined Diseases ... ..			87	17	3	3	2	4	13	21	24	23
Diseases ill-defined or unknown ... ..			44						2	1	41	28
			574	117	28	23	22	24	77	119	164	178
Pneumonia ... ..			12	1			2		4	3	2	5

TABLE IV. **CHATHAM BOROUGH.***Infantile Mortality during the Year 1913.*

Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 to 4 Weeks.	Total under 1 Month.	1 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	Total Deaths under 1 Year.
All Causes { Certified. Uncertified.	31 2	9 1	11	3	54 3	23	12 1	13	11	113 4
Measles ... ..								1	1	2
Whooping-Cough ... ..						1		1		2
Erysipelas ... ..						1				1
Tuberculous Meningitis ... ..								1		1
Meningitis ... ..							1			1
Convulsions ... ..	4	1		1	6	4			2	12
Bronchitis ... ..				1	1	2	1	2		6
Pneumonia (all forms) ... ..		1			1	1	1	1	4	8
Diarrhoea ... ..						1	1	1	1	4
Enteritis ... ..			1		1	1		3	1	6
Gastritis ... ..						4		1		5
Syphilis ... ..			1		1	1	2			4
Suffocation, overlying... ..	1		1		2	2	2			6
Injury at Birth ... ..	2				2					2
Congenital Malformations .. ..			1		1		1		1	3
Premature Birth ... ..	25	7	5	1	38	3	1			42
Atrophy, Debility and Marasmus	1		1		2	2	3	2	1	10
Other Causes ... ..		1	1		2					2
TOTALS... ..	33	10	11	3	57	23	13	13	11	117

Nett Births in the year : Legitimate, 1080 ; illegitimate, 53.

,, Deaths ,, Legitimate infants, 108 ; illegitimate, 9.

## SUMMARY OF VITAL STATISTICS. 1913.

Area in Acres.....	4443·298
Population (Census 1911).....	42,250
„ (estimated).....	43,450
Births registered .....	1,133
Birth Rate per 1,000 .....	26·
Net Deaths registered .....	574
Death Rate per 1,000 .....	13·2
Zymotic Death Rate.....	1·1
Phthisis Death Rate.....	1·3
Infantile Mortality per 1,000 Births.....	103
Number of occupied houses (1912, 9,596)...	9,574
Annual Rateable Value .....	£172,710
Total Rates in the £.....	8s. 9d.
A 1d. Rate produces .....	£633

## A.—NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

The Borough of Chatham is situated on the southern bank of the River Medway. On the north it is bounded by the City of Rochester, and on the east by the Borough of Gillingham, thus being the centre of three urban districts, the division of which is of an arbitrary character, the three towns merging into one large populous industrial community pivoted on the Naval and Military prosperity of Chatham and its Dockyard.

Owing to its boundaries, the development of the town can only take place to the south-west and the south-east, and there is steady progress in these directions. Owing to the hilly nature of the district much of the town, and especially its older parts, lies in the hollows, whilst newer dwellings occupy more elevated and open positions. Geologically, the Borough is on the chalk formation, and in the Luton District there is a bed of clay or brick earth with a varying depth of overlying loam.

Chatham contains many old houses in streets of narrow width, but I think that each year sees a diminution of dwellings which are less and less able to conform to necessary and reasonable standards of habitability. The newer property has invariably open space at the rear, and in many cases in front. The chief centre of industry is the Dockyard, and it is the Dockyard which gives life to everything else. Beyond a few clothing factories and minor industries, there are tradesmen supplying the ordinary requirements of the population, a large number of soldiers and sailors, casual labourers, and a fair number of retired naval, military and civil servants. The clothing factories give employment to many females, either as factory hands or out-workers.

## POOR LAW RELIEF AND HOSPITAL ACCOMMODATION.

The administrative area of the Poor Law Authority extends beyond the Borough, and as the latter is only a section of the area, I am unable to obtain figures as to the amount of Poor Law relief in Chatham.

There is a large Poor Law Infirmary, Naval and Military Hospitals, and a General Hospital with 100 beds. To this latter institution is attached a very large out-patient department. The Hospital is well organised and administered, and has of late years added materially to its apparatus and resources for treatment, which is entirely gratuitous. Its value to the district cannot be over-estimated.

A return of new cases of Pauper Sickness is sent every week by the Clerk to the Guardians. The total number during 1913 was 476, an average of nine per week. The majority are amongst old people, and are chronic in character.

## B.—SANITARY CIRCUMSTANCES OF THE DISTRICT.

Chatham possesses an abundant water supply. The source is in the chalk formation, where there are deep borings with horizontal headings or adits to increase the supply. There is also an additional supply, limited in amount, obtained by a boring into the lower greensand. The Waterworks are situated in the Luton Valley, and the watershed area comprises an extensive slope from the North Downs. From the Waterworks the water is pumped to the storage reservoirs, which have a joint capacity of over 9,000,000 gallons. The two largest are situated on the Rainham Road, and a smaller one at Bridgewood Gate on the Maidstone Road. The supply is constant, the pressure is good, and there is no lack of water.

The present average daily consumption is about 16 gallons per head. This amount will be materially increased when the water carriage system of sewerage is in general operation, and probably 25 to 30 gallons per head will be required.

By the courtesy of the Secretary to the Waterworks Company, I have been favoured with particulars of the most recent analyses (both chemical and bacteriological) of their water supply, which are appended :—

### CHEMICAL ANALYSIS OF WATER.

Date received, 11th November, 1913.

From the Chatham Waterworks Company.

Label, House Tap, Chatham.

Appearance in 2 ft. Tube .....	Clear.
Colour .....	Pale blue.
Odour .....	None.



Reaction .....	Neutral.
Colour of residue .....	White.
Total solid matter .....	23·62 grs. per gal.
Chlorine .....	1·584 „ „
Equal to Common Salt .....	2·596 „ „
Nitrogen as Nitrates .....	·239 „ „
Nitrogen as Ammonia.....	·000 „ „
Oxygen absorbed by organic matter .....	·008 „ „
Degree of hardness.....	19·26 „ „
Degree of hardness after boiling.....	3·19 „ „
Organic Carbon .....	·016 „ „
Organic Nitrogen .....	·003 „ „

The sample is of high organic purity, the total salts in solution and the hardness are normal, and there is no chemical evidence of any pollution.

### BACTERIOLOGICAL ANALYSIS.

The following results were obtained from the bacterial examination of the samples of water taken at Chatham on the 28th November, 1913 :—

	Microbes per C.C.
1. Pumping Station, Luton .....	39
2. 146, Rainham Road .....	9
3. Star Hill, Rochester.....	53

*Bacillus coli communis* was not present in 30 c.c. of either of these samples, the number of microbes per c.c. present is low, and the condition of the water is good.

The results of analysis do not differ materially from those published last year. The quality is excellent, and it is highly satisfactory to find that bacteriological tests reveal no bacteria of the coli group.

The question of hardness has been discussed in previous Reports, and I need only refer to my Report of 1911, to which I have nothing to add.

There are now no existing shallow wells in the town, but in some rural parts of the Borough the whole supply is dependent on the rainfall, and owing to their elevation it is not possible for the Company to give a water service.

I have on many occasions referred to the possible dangers of contamination of underground water supplies, and the position of a neighbouring locality shows that the danger is not an imaginary one. I have reason to know that the Company are not neglecting any measures which will safeguard the purity of their supply. Ground in the immediate vicinity of the works and headings has been cleared of dwellings, and the process of rendering cesspools watertight is

being steadily carried out. In some cases the frequent emptying which is necessary has become a nuisance to individual householders, and whilst this is to be regretted, it is inevitable under present circumstances. Contamination of the public water supply must be prevented at all costs.

## RIVER POLLUTION.

The River Medway receives much crude sewage, principally from the large Government Departments, and also from war and other vessels in the River. The latter source of pollution cannot be obviated, the former will only cease when main drainage is in operation.

## DRAINAGE AND SEWERAGE.

For a long period of years this subject has received notice in my Annual Reports. The condemnation of the present system of sewage disposal, and the expression of hope that an early alteration would occur has been the burden of the theme. Last year I was able to record distinct progress. A suitable site had been found, and approved, an option was secured, and it remained to decide whether a scheme of Main Drainage should be carried out jointly by Chatham and Rochester, or by each separately. The Chatham Council was unanimous in its determination to proceed, with Rochester if possible, or if negotiations failed, alone. To anyone considering the proximity of the two towns, of their geographical position, and of the vastly increased expenditure which separate schemes would entail, there could be no doubt of the overwhelming advantages which a joint scheme would offer, and in the very prolonged and careful negotiations which have taken place between the representatives of the towns, considerable tact and patience were displayed, and, above all, a desire on both sides that, whilst safeguarding as far as could be the interests of their respective ratepayers, everything should be put on such a fair basis that in the future working of the scheme there should be no discord. That this has been accomplished in the face of very grave difficulties must be placed to the lasting credit of the negotiators, and it is significant that their work received the almost unanimous approval of their Councils.

The position is now as follows :—An agreement has been concluded between the two Corporations, and the Engineer to the scheme has been appointed. Application to the Local Government Board for a Provisional Order for the constitution of a Joint Sewerage Board, and for the compulsory purchase of the various lands required for the scheme, has been made, and an inquiry has now been held. This and other important matters must be adjusted before work can be commenced.



## CLOSET ACCOMMODATION.

The following types of sanitary conveniences are in use in the district :—

- (a) Water Closets with flushing apparatus.
- (b) Closets with pans and traps, but without a flush.
- (c) Trough Closets in use at schools, flushed once or more daily.
- (d) Open privies.

The greatest nuisance arises from the open privies, some of which, especially where there is a common yard, are very large, and contain huge quantities of fæcal matter. The stench arising from these places is very bad, and a great danger results from the large quantities of flies always to be found in the vicinity of filth accumulation, from whence they visit the houses and pollute food.

During the year 125 open privies have been converted into panned and trapped closets.

The approximate number of each type of closet is as follows :—

Open Privies .....	2,041
W.C.'s with flush .....	4,783
W.C.'s, hand flushed .....	2,377
Pail and Earth Closets.....	44
Number of houses without separate accommodation .....	416

Number less by demolition of houses under :—

	Panned.	Open.
Section 15 .....	1	1
Section 17 .....	0	54

Number increased under :—

Section 15 .....	0	59
Section 17 .....	0	27
Sections 36 and 91. Public Health Act .....	Without Water Flush. 15	With Flush. 24
New Buildings .....	Pail and Earth. 4	Panned. 98

## HOUSEHOLD REFUSE AND ITS DISPOSAL.

Respecting this subject I made a Special Report to your Council on September 4th, in which I used the following words :—

“ The method of dealing with household refuse is one that requires the careful consideration of the Council, especially in connection with the kind of receptacle used for its storage. It is generally admitted that the system of frequent and regular removal in use in

the Borough is a good one, but that it is spoilt by reason of the appliances in which the refuse is placed on the edge of the pavement to await the visit of the dust cart.

“ When the construction of fixed ashpits ceased to be compulsory, there was far too loose an interpretation of the clauses of the Public Health Act which permit owners or occupiers to use other receptacles, and the consequence is that in this important matter every individual has become a law to himself, and provides any article that he can best spare for the purpose.” The truth of this statement is apparent in the infinite variety of unsuitable receptacles which disgrace our streets for several hours a week, and which, besides being unsightly, create a nuisance, and may be dangerous to health. My first point is

*That no individual should be able to prescribe the kind of receptacle he chooses.*

The work of removal from beginning to end has to be carefully organised, and its efficient and economical working depends largely on the machinery used in every part of the process. A part of this machinery, in the shape of men, horses, carts, etc., is provided by the Local Authority, representing the community, and a part is provided by the individual occupier or owner, the whole work being in the interest of the public health. If the machinery provided by the owners or occupiers is ineffective or unsuitable, delay in handling must occur, extra labour becomes necessary, and fewer houses per hour can be attended to, obviously increasing the cost to the ratepayer, besides which unsuitable and uncovered receptacles render the contents liable to saturation by rain, forming masses of decomposing filth, they are accessible to dogs and cats, and to children, and they become infested by insects which may convey infectious particles to food. The contents leak or are spilled on the road, and have to be swept up by the Corporation men, which takes up extra time.

The sections under the Public Health Act, 1875, giving powers to Local Authorities are :—

Section 35, which renders it unlawful to erect a new house, or to rebuild one partly demolished, without a proper ashpit.

Section 36, which states that the Local Authority, if there is default, *shall* require the owners or the occupiers to provide, but in the event of non-compliance they *may* recover expenses from the owner, or *may* by order declare the same to be private improvement expenses.

Section 45 gives Urban Authorities, if they think fit, power to provide in proper and convenient situations, receptacles for the temporary deposit and collection of dust, ashes, and rubbish.

Section 11, Public Health Amendment Act, 1890, defines "Ash-pits" as including ashtubs or other receptacle, and in our Local Byelaws,

No. 80, on page 43—the kind and size of receptacle is defined.

It is clear that Councils possess the legal powers to enforce their wishes in this matter, but there are certain difficulties in this connection which interfere with the application of these powers, but on which I am of opinion a satisfactory compromise is possible.

The truth is that neither owners nor occupiers are willing to incur the small expenditure entailed by the provision of covered bins, whilst both are unanimous in their condemnation of the present form of storage. There is thus a divergence of opinion on the question of liability, but there can be no difference of opinion on the necessity of safeguarding the public health. The present method is indefensible, and in my judgment is at once a nuisance and dangerous to health, and the diffusion of knowledge respecting the habits of the common fly, and its influence on the causation of disease, gives additional emphasis to this opinion. The great objection of the owners arises from the portability of the receptacles, and their consequent liability to damage and theft, and if it can be substantiated, this objection, and what it entails in probable loss, is a weighty one. It is the invariable custom in the more highly rented houses for the occupier to provide the receptacle, and why should he not provide it in houses of a lesser rental?

The exception to this rule would be in the class of dwelling where there is a common occupation of the yard, and obviously in cases of this description, one could not reasonably expect every tenant to have his own ashbin.

In these instances the owner should provide one or more suitable large ashbins, and more especially is this necessary, as there are many places entirely without provision for ashes and other refuse.

Another point in connection with the subject is this. When we consider the huge quantities of house refuse collected in the district, and remember that a very large part of it is combustible, one wonders that householders do not themselves burn some of it. A byelaw compelling occupiers to burn all combustible refuse would materially reduce the amount to be collected, and its effect would result in a lowering of the rates. Probably this is the only reason which would induce many of them to take the trouble.

My recommendations to the Council may be thus summarised :—

1. The prevailing neglect of the above matters should no longer be ignored.
2. Should insist on the provision of suitable covered receptacles.



3. Should give written notice to the occupier of every house possessing its own yard to provide a suitable receptacle.

4. In the case of dwellings having common yards, notices should be given to the owners to provide suitable receptacles.

The above policy has been embodied by the Council in the following resolutions :—

1. That notice be given to the occupier of every house possessing its own yard to provide proper receptacles.

2. That notice be given to the owners of dwellings having yards in common to provide proper receptacles.

3. That the Highway and Works Committee be asked not to grant certificates for occupation of new dwelling-houses until proper movable receptacles for house refuse are provided in accordance with the byelaws.

Unless the public act with unwonted energy in connection with this matter, and anticipate requirements, it will be a very long period before any great change is noticeable, and I anticipate objections, and probably resort to a Court of Summary Jurisdiction to settle rival opinions.

There are nearly 10,000 houses in the Borough, and the service of notices will occupy considerable time. A beginning has been made, and 201 notices have been issued.

Another point which, in my opinion, is desirable is such a re-organisation of the collection that the streets could be cleared by an early hour in the morning.

After collection the refuse is carted to a shoot near Luton, well away from dwelling-houses, where a portion is used for manurial purposes, and the rest is burned. Sooner or later this process will have to be discontinued, and refuse will either be treated in a suitable destructor or removed to some more distant site.

Fish offal is collected daily in covered bins, which are placed in a closed van. Each bin and the interior of the van are cleansed daily, and there is no nuisance.

## MANURE.

The regular and frequent removal of manure from stables is desirable. Large manure heaps are the chief breeding grounds of flies. These insects are carriers of filth and of infection, and to check their propagation is preferable to the method of killing.

Sections 49 and 50 of the Public Health Act, 1875, give the necessary powers for removal of manure at fixed intervals. Notices were issued during the summer, and an Inspector detailed to see the work carried out.

Regular visits are made to courts, alleys, and passages with a view to securing their cleanliness and freedom from decaying matter.

Sections 21 and 27, Public Health Amendment Act, 1890, give the necessary powers for this purpose. In theory the obligation lies on the occupiers, but in the case of common occupation it is seldom carried out. I have before expressed the opinion that, in the interests of the public health, the most satisfactory method would be for the Sanitary Authority to undertake the duty.

The paving of yards, etc., is being gradually carried out in accordance with the provisions of Section 41 of the Public Health Amendment Act, 1890.

I trust that the gradual demolition of low class property will lead to a decrease in the number of courts and alleys.

## HOUSING.

The powers possessed by Local Authorities in regard to this subject are of a very extensive character, and if they are taken full advantage of they will, in a few years, bring about a great alteration in the dwellings and surroundings amongst which the poorer classes of the population live.

The Acts dealing with housing conditions are the Housing of the Working Classes Acts of 1885, 1890, 1894, 1900, 1903, and the Housing and Town-Planning Act, 1909.

The latter Act amends many of the provisions of the previous Acts; it simplifies procedure, and it increases largely the powers of Local Authorities, whilst it also provides for the making of Town-Planning Schemes, and extends the powers and duties of County Councils in regard to housing.

The two chief sections of the last-named Act are Sections 15 and 17, the former restricted to houses of a certain rental and occupation, the other applying to any house. By the one owners can be compelled to keep their property in a reasonably habitable condition; by the other, intended for more extreme cases, Closing Orders may be issued, and at the expiration of a definite period, if a house is not rendered fit for human habitation, its demolition will follow.

The above sections are applicable to single houses, but in the case of insanitary areas the usual procedure is for the Medical Officer of Health to make a representation under Part I. of the 1890 Act (Section 4). Part III. of this Act giving Local Authorities power to erect new houses or to alter and reconstruct old formerly adoptive is now generally applicable.

It will be seen from the above brief outline that housing work may be classified under four heads:—

1. The maintenance in a sanitary condition of existing dwellings.

2. The closing and demolition of such dwellings as are incapable of improvement.

3. The clearing of insanitary areas.

4. The provision of new houses if required.

In Section 17 (1) of the 1909 Act it is stated that “ It shall be the duty of every Local Authority within the meaning of Part II. of the principal Act to cause to be made from time to time inspection of their district, with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and for that purpose it shall be the duty of the Local Authority, and of every officer of the Local Authority, to comply with such regulations, and to keep such records as may be presented by the Board.”

The opening words of the above section simply re-enact existing law, but the paragraphs relating to regulations and records are new, and indicate the importance attached by the Local Government Board both to adequate inspection on definite lines, and to the systematic recording of the findings.

The regulations form the basis on which the work under Section 17 is carried out, and in general refer to such important particulars as water supply, sanitary conveniences, lighting, ventilation, disrepair, dirty or damp interiors, unpaved yards, refuse disposal, or other defects likely to render a house dangerous or injurious to health.

In your district, although house inspection is a regular duty of your Inspectors, all houses scheduled and reported on under the above sections have been personally inspected by myself, and I also accept the responsibility of deciding as to whether they are or are not fit for habitation.

The results of the work carried out under the Act and in other directions during the year 1913 are very gratifying, and amply justify its provisions, and I am glad to record that in several cases owners have shown a willingness to comply with the broad requirements of the Act without the necessity of formal notices.

In carrying out a housing policy the primary essential is to discover the insanitary houses, then to fix upon certain definite standards which every dwelling should possess, and lastly to take such measures as will secure the necessary improvements, or failing this, the clearing away of the insanitary dwellings.

Chatham is, unfortunately, burdened with a considerable number of old and defective dwellings, and also with a large amount of unskilled and casual labour, and of individuals whose livelihood is of



the hand-to-mouth character, whose capacity for work is extremely limited, and frequently combined with a rooted objection to its performance; in other words, the loafer element is too prevalent.

In my Report for 1912 I stated that the worst and most insanitary type of house was the back-to-back, and that there were about 160 of them in the Borough. This was an under-estimate. Since that date a list has been carefully prepared, and in the early part of 1913 there were some 200 houses of the back-to-back type, besides which there were nearly 400 dwellings not back-to-back, but devoid of adequate through ventilation, especially on the upper floors.

On the completion of these lists I obtained the names of several owners and communicated with them, offering to meet them on the premises, and confer with them as to the best means of securing satisfactory ventilation. These letters referred entirely to the class of house where through ventilation could be secured, and not to back-to-back dwellings. As a rule there was no difficulty in securing the owner's co-operation, and as a result of this branch of the work I have to record the following :—

Number of non-through houses respecting which letters were sent to the owners and interviews arranged .....	110
Number in which work has been completed.....	110
Number of new windows put in, including houses dealt with under Sections 15 and 17.....	326

The result has been a marked change in the character of the houses dealt with, and many of the tenants have expressed their appreciation and gratitude for the additional light and air, and as a further result, cleanliness. Owners who objected at first have been convinced of the benefits of the work, and there is no comparison between the foul, stuffy atmosphere which used to prevail and the more wholesome one which now obtains. In several cases owners have voluntarily undertaken other work, have cleansed and repaired interiors, provided sink and water supply, and improved washhouse accommodation, but in other cases only the bare requirements of additional ventilation were carried out, and other necessary improvements have required the issue of statutory notices.

To a great extent I have discontinued the intimation notices, and for the reason just stated prefer to act under Sections 15 or 17 of the 1909 Act, and whenever desired I still continue to meet owners or their representatives, with the most beneficial results.

The following table, drawn up in accordance with Article V. of the Housing (Inspection of District) Regulations, gives particulars of the work carried out in respect to housing during 1913 :—

## SECTION 17.

Tabular statement showing :—

Number of dwelling-houses inspected under and for the purpose of Section 17 (Act, 1909) .....	150
Number of dwelling-houses which, on inspection, were considered to be so dangerous or injurious to health, as to be unfit for human habitation .....	150
Number of representations made to Local Authority with a view to the making of Closing Orders .....	150
Number of Closing Orders made .....	150
Number of houses, the defects in which were removed without the making of Closing Orders .....	0
The number of houses which, after the making of Closing Orders, were put into a fit state for human habitation .....	54
General character of defects found to exist :—	
1. Back-to-back.	
2. Non-through ventilation.	
3. Insufficient w.c. accommodation.	
4. No sinks.	
5. No water inside houses.	
6. Dampness.	
7. Dilapidated.	
8. Unpaved yards.	
Number demolished .....	43
In abeyance for street widening .....	2
Houses owned by owners cited to appear before the Council .....	10
In abeyance for pumping station (Main Drainage) .....	6
Houses (owner will be cited to appear in February, 1914) .....	2
Work not completed .....	33
Houses standing on books, December 31st, 1912 .....	22
Of these the undermentioned were demolished in 1913 :—	
170, 172, 174, Chatham Hill .....	3
1, 2, Bensters Cottages .....	2
61, 63, Coleman Street .....	2
169, 171, Brook .....	2
30 Back Cross Street .....	1
Cottage rear 300, High Street .....	1
<hr/>	
Total.....	11
<hr/>	

## SECTION 15.

Number inspected .....	214
Number reported .....	214
Number put into fit state .....	127
Number outstanding .....	84
Number demolished .....	3

(Of the total number of 214, 62 were reported during the last six weeks of the year, and therefore could not be completed.)

General requirements :—

Good repair.

Cleanliness.

Adequate ventilation.

Sufficient water supply.

Well-paved yards.

Proper conveniences.

Sinks.

With regard to the general character of the defects found to exist, they are broadly such as are scheduled in the Regulations, but in addition to the defects therein set out, I consider that a back-to-back house, or a non-through ventilated single house, comes within the provisions of Section 17, and is injurious to health by virtue of its being back-to-back, even if it is otherwise in good condition.

In estimating whether a dwelling is satisfactory and fit for human habitation, I regard it as an essential first step that it should possess sufficient light and ventilation, water supply, and such sanitary and other conveniences as will facilitate cleanliness, and will rob the tenant of any reasonable excuse for neglect and dirt.

I have stated previously that owners as a class have risen to their responsibilities in this matter, and that there has been no practical difficulty in securing compliance with reasonable and necessary requirements. In all the Acts which have been passed to deal with the housing question it is the owner who has been compelled to spend money, and in many instances rightly so, but in no single case does the occupier contribute. The real obstacle to the improvement of slum property is, therefore, not the owner, but the occupier, and it is quite time that tenants who foul and damage property which has been put in proper repair should suffer a penalty for doing so. There may be differences of opinion as to the nature of this penalty, but I think its primary object should be the infliction of physical pain or discomfort. The habits of some people are appalling, they revel in dirt and squalor. Gossip is the chief occupation of the female, whilst intemperance is frequent, and children may be seen half-naked and vilely dirty, utterly uncared for. Such is a common spectacle in certain neighbourhoods. Looking into the interior of the houses, they are



untidy, unswept, windows not cleaned, dust and cobwebs everywhere, grates unswept, table littered with dirty cups, saucers and plates; upstairs, beds unmade, slops not taken away. The presiding genius of this establishment is a down-at-heel slattern, with dirty, unmended and buttonless clothing, kept in place by numerous safety and other pins. Her hair is never tidy, and her face and hands are grimy and unwashed. She cannot cook, sew, or clean. Some of the difficulties under which these people labour are due to economic causes, to the size of the family, and to absence of necessary conveniences. It is to a reform of the last condition that municipal administration can contribute.

In addition to the work above described, I made a special report to your Council on May 13th with respect to what is known as the Brook area.

This area comprises both sides of King Street, the older portion of Cross Street, the whole of Queen Street, and the Brook from Nos. 113 to 173, inclusive, together with all houses in the rear of and approached from any of these streets.

Total extent of area, 4.59 acres.

Number of houses, 160.

Estimated population, 660.

About 90 houses are back-to-back, or non-through.

The representation was made under Part I. of the Housing of the Working Classes Act, 1890, Section 4 (amended by Section 22 of the Housing and Town-Planning Act of 1909).

I have felt for some time that attempts to patch up and repair such property as exists in this area were a waste of effort, because they led to no permanent improvement, and that the existing insanitary conditions, the poverty, the squalor, and the bad habits of life can only be ameliorated by attacking the locality as a whole and in a drastic manner. It is a subject of considerable magnitude, and is still under the consideration of a Special Sub-Committee. Pending their decision, which cannot be long delayed, the Report is not yet available for the public. Beyond stating that the members of the Committee have, by personal visitation, satisfied themselves as to the truth of my representation, further comment would at present be inappropriate.

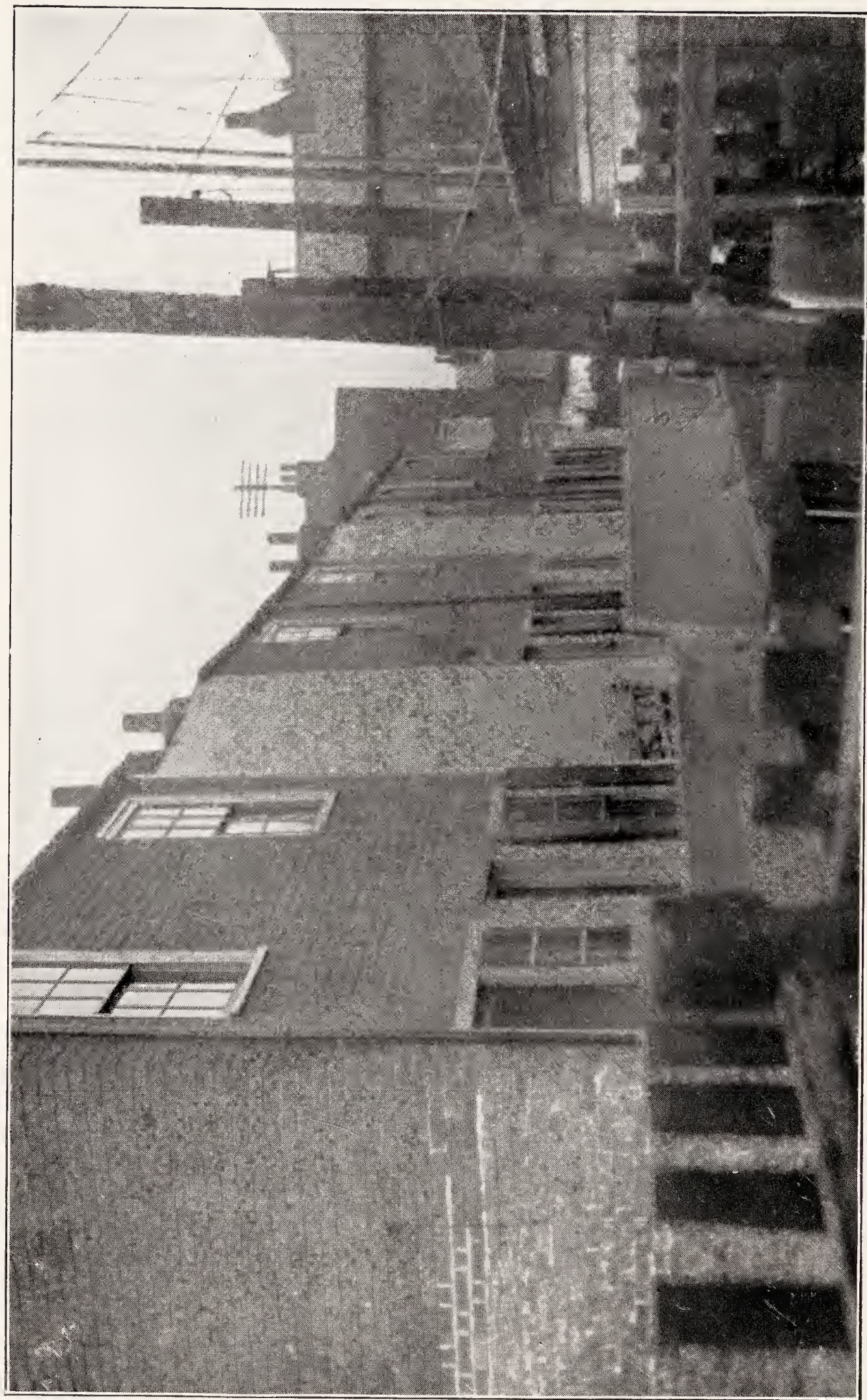
A point has been reached in connection with the housing problem which needs very serious consideration. A large number of houses have been closed and demolished, and there are several others for which this is the only satisfactory treatment, but the accommodation for people of the class displaced is insufficient. In many cases it is a practical impossibility to find a suitable dwelling, and unless the deficiency can be made up, a continuance of work under Section 17 can only lead to a disastrous method of house sharing, already too prevalent.





Showing New Windows in Non-Through Houses.





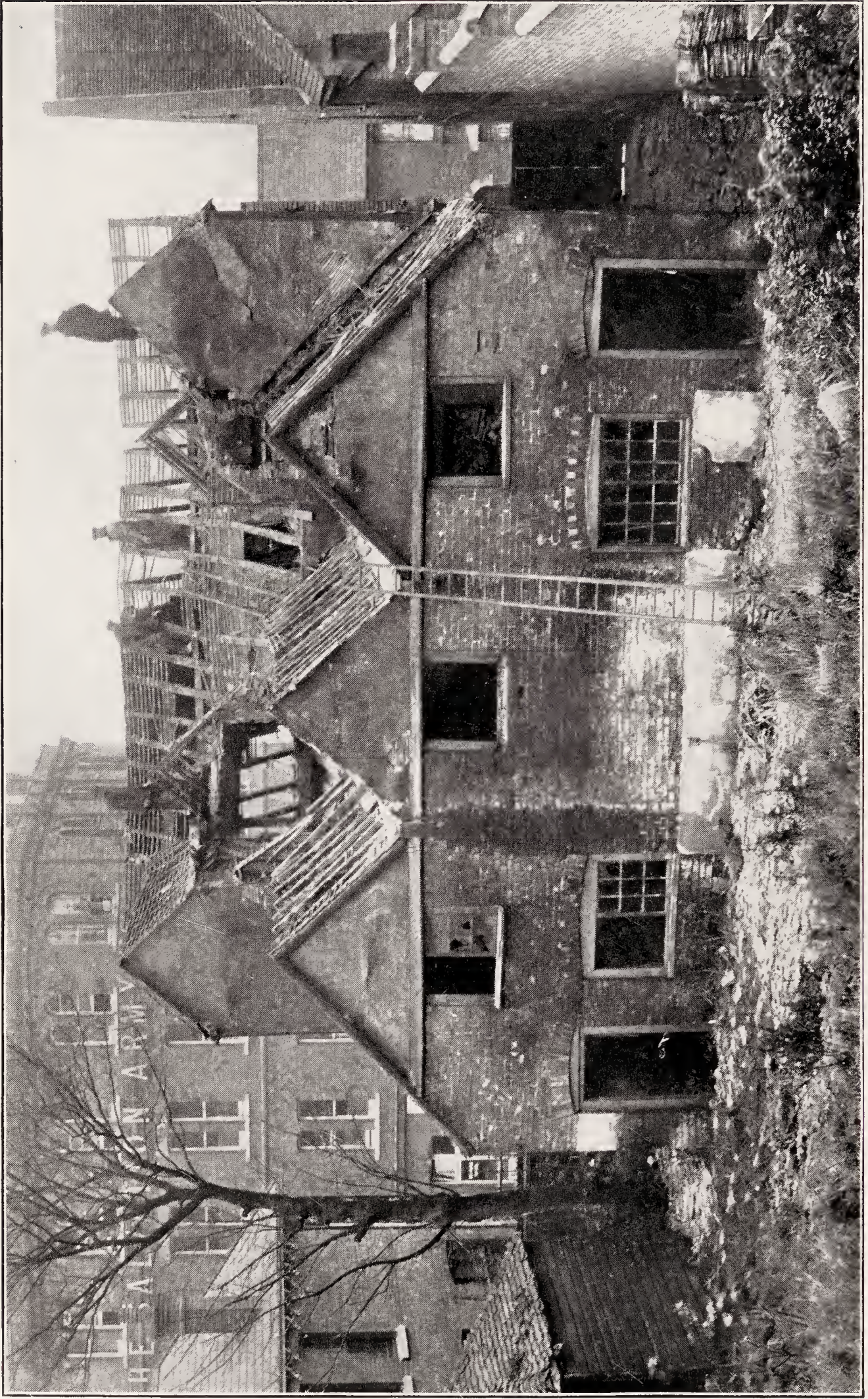
Non-Through Houses, in which every 3rd House has been removed.





Non-Through Houses, which have been ventilated.





Demolition of back to back Houses.





Courtyard of back to back Houses (Demolition Order Made).





Under these circumstances leniency as to overcrowding has to be shown, and there are cases where steps to diminish overcrowding in a house merely have the effect of change of residence, without actual abatement.

The number of cases of overcrowding dealt with and remedied was seven.

The accompanying photographs give an idea of the class of property referred to, and of the work being carried out.

### NEW BUILDINGS, 1913.

New houses and shops erected, 116.

Not more than three of the above dwelling-houses would let at rents over £26 per annum, and the others would be from 5s. 6d. to 8s. weekly.

This class of house obviously does not meet the needs of the labouring class, who cannot afford more than about 4s. weekly.

### COMMON LODGING-HOUSES.

Number on register, December 31st, 1912.....	18
„ „ „ December 31st, 1913.....	16
Three have been demolished, and one registered during 1913.	
Total number of beds provided :—	
Single .....	404
Double .....	15
Average number of regular lodgers.....	128
Average number of casuals per night.....	141
Number of beds less by demolition.....	55
Number of beds less by re-measurement .....	10
Number of beds gained by new registered lodging-house .....	23
Number of cases of infectious disease.....	1

Regular inspection takes place, and surprise visits are also paid. Many casuals who formerly used these places for one night only now go into Workhouse Casual Wards, and there is a tendency for labourers and others to use them habitually for long periods. The usual price is 4d. per night, but in some cases a little more privacy and comfort is secured for 6d.

For the purpose of checking attempts at overcrowding, occasional evening visits are made.

The minimum cubic space for each inmate is 300 cubic feet.

### HOUSES LET IN LODGINGS.

Number on Register.....	40
Notices and intimations served :—	
For cleanliness .....	22

For repairs .....	18
Number removed from Register in 1913.....	2
Number provided with better ventilation.....	25

The systematic visitation and supervision of these houses is important, because without it there would be constant evasion and neglect of the Byelaws. Regular inspection secures a higher standard of cleanliness in the rooms, stairs and passages, checks overcrowding and indecent occupation.

In these, as in Common Lodging-Houses, there is a standard of cubic space, and in every house so let a card is supplied, on which are printed the Byelaws and the number of occupants allowed in each room.

### SLAUGHTER-HOUSES.

Number on Register.....	16
Notices and intimations served :—	
For cleanliness .....	12
,, repairs .....	5

Routine inspections and surprise visits are made at frequent intervals, and on the whole, considering their situation and proximity to other dwellings, they are kept in such a way that no complaint of nuisance has been received. An Inspector attends one or more slaughter-houses at the time of killing, thus securing a supervision over the meat. In connection with this work he attends the Cattle Market at Rochester, and takes particular note of the sale and destination of poor and inferior priced animals. The result of this has been the seizure and total destruction of two carcasses of beef found badly affected with Tuberculosis, and one sheep suffering from disease of a malignant character. Many butchers now give notice of any suspicious animal, and are ready to surrender if disease is present. In some cases slaughtering takes place at irregular times. It should be restricted to certain hours of the day, and if necessary at any other time notice should be given to the Sanitary Department. The Local Government Board have been asked if they will sanction a regulation of this kind.

A horse slaughtering establishment situated in the town, and doing a large business, has now been closed. Suitable premises have been erected in the country, well away from habitations, and a licence has been granted.

A tabulated list in regard to unsound food is included in the statement supplied by the Inspector of Nuisances.

### FOOD AND DRUGS ACT.

The administration of this Act is in the hands of the County Police. Samples are taken by the Superintendent of Police, or by an officer deputed by him, and are sent to the County Analyst at Maidstone for examination.



The following is a list of the samples taken within the Borough during 1913 :—

Article.	Number.
Butter .....	27
Margarine .....	16
Lard .....	6
Whisky .....	19
Brandy .....	2
Rum .....	2
Gin .....	5
Milk .....	78
Oatmeal .....	1
Sugar .....	4
Coffee .....	2
Cream of Tartar .....	1
Tapioca .....	1
Citric Acid .....	1
Cod Liver Oil .....	1
Mustard .....	2
Cream .....	3
Jam .....	4
Cheese .....	1
Cocoa .....	4
Baking Powder .....	1
Cornflour .....	1
Tincture of Iodine .....	1
Spirits of Nitre .....	1
Mercury Ointment .....	1
Total.....	185

Proceedings were taken in three cases of milk being deficient in fat. In two cases convictions were obtained, and in one case the defendant was ordered to pay costs.

#### DAIRIES, COWSHEDS, AND MILKSHOPS.

Number of Registered Cowkeepers .....	11
Number of Registered Dairymen and Purveyors of Milk .....	43
Number of Cowsheds in use .....	14
„ „ not in use .....	6
„ „ demolished .....	1
„ Dairies .....	12
„ Milkshops .....	31
Number of Purveyors of Milk removed from Register, Shops not being suitable.....	14

Comparing the figures with those of 1912, it will be noticed that the number of Dairymen, Purveyors of Milk, Dairies and Milkshops has decreased. Improved supervision and greater stringency regarding the observance of regulations are the reasons.

The Dairies, Cowsheds and Milkshops Order, 1885 (amended 1886 and 1889), applies to England and Wales, and the Regulations issued by the Local Government Board have the following objects :—

- (a) The inspection of cattle in dairies.
- (b) For prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of dairies and cowsheds occupied by cowkeepers or dairymen.
- (c) For securing the cleanliness of milk stores, milk shops, and milk vessels, used for containing milk for sale by such persons.
- (d) For prescribing precautions to be taken by purveyors of milk, and persons selling milk by retail, against infection or contamination.

Regular inspections of cowsheds are made by myself, and frequent visits at irregular periods are made by an Inspector, and by this means a certain standard of cleanliness is secured, and considerable improvement has taken place of late years, but the average cowkeeper is not of a progressive type, and he can't, or won't, realise that an alteration in his methods would not only be labour saving and economical, but would lead to increased custom.

A system of marking has been adopted in reporting on the condition of cowsheds, by which it is easy to see where a cowkeeper is defective, and to secure a remedy.

The chief defects occurring in connection with cowsheds are the water supply in some instances, dung disposal in all, and inadequate cleansing in most.

As regards milking, handling of milk, and condition of cows, there is much scope for improvement. Rarely is suitable provision made for washing the hands of the milkers, no overalls are worn, and anyone familiar with the clothing of men occupied in farm work knows how dirty it is.

The chief points for the cowkeeper to understand is that milk is liable to contamination

- (1) From dirt on the cows themselves.
- (2) .. the hands or clothes of milkers.
- (3) .. the air and dust of cowsheds.

nearly all of which could be prevented by improved and inexpensive methods of cleanliness.

All milch cows are inspected every three months by a Veterinary Inspector, who reports on a special form with respect to each cowshed, the points noted being signs of Tuberculosis, disease of udder or

teats, or any other signs of illness, and the cleanliness of the cow. This inspection is very useful.

Registered milkshops have decreased in number, and compliance with regulations is strictly enforced. A previous Report showed that many were conducted under conditions favourable to contamination. In some instances these have been removed, and in others the sale of milk has been discontinued.

The proprietor of one cowshed was prosecuted during the year for neglecting an order of the Court to put his premises into a proper sanitary condition, and was convicted and fined £1 10s. and costs.

## OFFENSIVE TRADES.

There are two classes of offensive trade carried on in the Borough, viz. : Gut Scraping and Fish Frying.

Gut Scraper .....	1
Fish Fryers .....	2
(a) Newly established, 1913 .....	2
(b) New structures provided for cleaning fish...	4
(c) General cleansing carried out .....	6
(d) General repairs done.....	7

Visits are paid every quarter to see that the byelaws and regulations are complied with. There is no doubt that a very great improvement has resulted, and that little or no nuisance results from a fried fish business, when conducted according to regulations.

## STATEMENT OF INSPECTOR OF NUISANCES.

## SUMMARY OF WORK.

Drainage in connection with plans passed :—

(1)	New Buildings (Private Houses).....	92
(2)	,, (other) .....	3
(3)	Old ,, (a) Additions .....	12
	(b) Drainage only .....	0
	(c) Rebuilt after fire .....	1
		<hr/>
		108

CESSPOOL WORK.

Number of Applications.....	3,341
Number of Sewage Loads (liquid) removed .....	6,614
Number of Night Soil Loads removed .....	2,754

## MORTUARY.

Bodies removed to Mortuary :—Men .....	7
Women .....	4
Children .....	8
Post-mortem Examinations .....	9
Bodies Buried at Expense of Parish .....	6

## INFECTIOUS DISEASES.

Number of Loads of Bedding Disinfected .....	256
„ Library Books Disinfected .....	38
Work prohibited in Homes of Outworkers (Temporary) .....	14

## VISITS.

Factory Workshops and Workplaces.....	198
Housing and Town-Planning Act .....	1,135
House to House Inspection.....	210
Drainage Work .....	841
Common Lodging-Houses :—	
Day .....	110
Night .....	32
Infected Houses .....	848
Homes of Outworkers .....	431
Cesspool Work .....	59
Complaints and General Nuisances .....	113
Houses let in Lodgings .....	112

## UNSOUND FOOD.

## 1. MEAT.

- 2 Carcases of Beef.
- 1 Sheep.
- 40 lbs. of Beef.
- 13 sets of Edible Organs.

## 2. FISH.

- 2 Trunks of Bream.
- 5 Trunks of Haddock.
- 2 Trunks of Cod.

## 3. FRUIT AND VEGETABLES.

- Potatoes.
- Various.



## OVERCROWDING.

Seven Notices were served for overcrowding, and remedied.

## FISH OFFAL COLLECTION.

Number of Shops—(1) Fried Fish Shops.....	21
(2) Ordinary Fish Shops ....	2

## ASHBINS.

Number of Notices issued .....	201
Number of Bins provided .....	59

## SUMMARY OF NUISANCES ABATED.

Bell Traps removed .....	15
Broken W.C. Pans renewed .....	11
Brick Drains removed .....	7
Concrete Yards repaired .....	31
Concrete Yards provided.....	42
Cesspools constructed .....	94
Cesspools enlarged or repaired .....	78
Cesspools ventilated .....	94
Closet structure built or rebuilt .....	184
Drains repaired .....	18
Drainage to New Buildings inspected .....	95
Drainage to Old Buildings inspected .....	233
Further Water Supply provided .....	82
Flushing Cisterns to W.C.'s provided .....	182
Houses with Old Drains replaced.....	53
House with entirely new.....	
Houses with Privies supplied with drainage .....	144
New Sink Waste Drains .....	76
Overcrowding abated .....	7
Keeping of Animals in unfit state .....	8
Privies repaired .....	4
Privies filled in .....	144
Panned and Trapped Closets supplied .....	223
Sinks provided .....	82
Stables drained .....	4
Urinals built or repaired .....	2
Choked Drains cleared .....	214
Washhouses provided .....	21
Ventilation provided under floor .....	10
Accumulation of Manure removed .....	5

## NOTICES SERVED.

Preliminary Notices .....	109
Public Health Act, 1875, Section 91 .....	114
"                    "          Section 41 .....	4
Section 36 ..... Dustbins .....	201
Sufficient W.C.'s .....	24
	———
	225
Public Health Act Amendment Act, 1890, Sec. 22	0
Public Health Amendment Act, 1907- Sec. 25 ...	12
"                    "          "          Sec. 35 ...	4
"                    "          "          Sec. 37 ...	2
"                    "          "          Sec. 45 ...	12
"                    "          "          Sec. 43 ...	2
	———
	32
Housing and Town-Planning Act, Sec. 17 .....	132
"                    "          Sec. 15 .....	191
	———
	323
	———

**C.—SANITARY ADMINISTRATION OF THE DISTRICT.**

The following Staff is employed in carrying out duties under the above head :—

- 1 Whole-time Medical Officer of Health.
- 1 Chief Inspector of Nuisances.
- 2 Assistant                   ,,
- 1 Clerk.
- 1 Disinfector and Mortuary Attendant.
- 1 Foreman of Yard and Cesspool Work.
- 1 Nurse for work in connection with the Notification of Births Act.

Besides a varying number of men employed in the work of emptying Cesspools and Privies. Average 26.

The Inspectors of Nuisances work under the supervision of the Medical Officer of Health, and their general duties are those prescribed by the Local Government Board.

Progressive legislation in public health matters has greatly extended the scope and duties of a Health Department, and there are few branches of municipal administration in which the question of sanitation does not crop up.

## ADOPTIVE ACTS IN FORCE IN THE BOROUGH.

The Infectious Diseases Prevention Act, 1890.

Public Health Acts Amendment Act, 1890.

Public           ,,                   ,,                   1907.

Notification of Births Act, 1907.

Private Street Works Act, 1892.

In the statement received from the Inspector of Nuisances, which is incorporated in this Report, will be found a list of notices served under Section 22, Public Health Amendment Act, 1890, and Sections 35, 37, and 43, Public Health Amendment Act, 1907.

## BYELAWS.

The following Byelaws and Regulations are in use :—

1. New Streets and Buildings.
2. Drainage of existing buildings.
3. The cleansing of footways and pavements, the removal of house refuse, the cleansing of earth closets, privies, ash-pits, and cesspools.
4. Nuisances.
5. The removal of offensive matter through the streets.
6. The duties of the occupier in respect of house refuse.
7. Offensive trades.
8. Slaughter-houses.
9. Common Lodging-Houses.
10. Houses let in lodgings.
11. Tents, vans, sheds, and similar structures used for human habitation.
12. Mortuary Regulations.
13. Dairies, Cowsheds, and Milkshops Regulations.

Good byelaws, well carried out, ensure satisfactory sanitary administration. From time to time they need revision and addition, in order that they may more effectively meet changing methods as to material, design, and construction. If unduly restrictive, building operations may be curtailed by the requirement of a standard type of construction, when a cheaper form of material would be equally effective, and give greater scope to private enterprise. The majority of houses built for the labouring classes follow plans sanctioned by custom, but which have defects of some importance. For instance, the question of suitable storage for food rarely receives the attention it deserves, and so long as there is a cupboard of some kind, as a rule most unsuitable for the purpose, no further steps are taken. Ventilation is essential for food storage. Then again, houses built with rooms of inadequate size are a great mistake. Small kitchens, small parlours,



wretched little bedrooms are too often seen, and I am confident that a modification in the planning of dwellings, sacrificing the parlour, giving a good sized family dwelling room, and better bedroom accommodation, would be appreciated by those who dwell in them.

### CHEMICAL AND BACTERIOLOGICAL WORK.

Chemical analyses in connection with food, etc., are carried out by the County Council Analyst, and the local administration is in the hands of the County Police.

Bacteriological work is applied to the diagnosis of Diphtheria, Enteric Fever, Tuberculosis, Cerebro-Spinal Fever, Acute Polio-myelitis, Ringworm, Syphilis, Food Poisoning, Milk, Water, and Sewage Analysis, and to specimens from any kind of infectious or contagious disease not included in the above list.

This important work is carried out at the County Bacteriological Laboratory at Maidstone, and every facility is afforded to all Medical Officers of Health, and to Medical Practitioners residing in the County. Personally, I cannot speak too highly of its value, and of the prompt manner in which the results of examination are forwarded. The efficiency is so great, and the delay so short, that it becomes a moot question whether all infectious diseases for which hospital accommodation is provided, and for which bacteriological diagnosis is available, should not be subjected to a preliminary test before notification.

In this connection the following table, showing the number of specimens forwarded during 1913 and the results of examination, are of interest :—

	Total No. forwarded.	No. giving positive results.	No. giving negative results.
Diphtheria .....	105	34	71
Enteric Fever .....	9	1	8
Pulmonary Tuberculosis	51	12	39
Ringworm .....	33	26	7

Of the Diphtheria specimens 22 were of suspicious cases discovered at school and sent by myself, leaving 83 sent by Medical Practitioners. All the Ringworm cases were sent by me.

The total number of specimens of all kinds sent for examination was 198.

### D.—PREVALENCE AND CONTROL OF INFECTIOUS DISEASES.

Infectious diseases are sub-divided into notifiable and non-notifiable.

The *notifiable* infectious diseases are as follows :—

Small Pox, Cholera, Plague, Diphtheria, Erysipelas, Scarlet

Fever, Typhus Fever, Enteric Fever, Relapsing and Continued Fever, Puerperal Fever, and more recently Cerebro-Spinal Meningitis, Polio-myelitis, Pulmonary and other forms of Tuberculosis.

Those *not notifiable* are :—

Measles, Whooping Cough, Chicken Pox, Mumps, Diarrhœa and Enteritis.

The commonest notifiable diseases are :—Scarlet Fever, Diphtheria, Enteric Fever, Tuberculosis and Erysipelas.

The others are fortunately rare, with the exception of Small Pox, which from time to time assumes epidemic form.

Table II. shows the number of cases of infectious disease notified during 1913 in each division of the Borough.

The total number of cases notified was 424, including Pulmonary and non-Pulmonary Tuberculosis.

The subjoined table shows the number of yearly notifications from 1904 to 1913 :—

1904 .....	160
1905 .....	117
1906 .....	302
1907 .....	208
1908 .....	197
1909 .....	124
1910 .....	173
1911 .....	349
1912 .....	605
1913 .....	424

The reasons for the increase of the past three years are due to the inclusion of Tuberculosis as a notifiable disease, and to the prevalence of Scarlet Fever and Diphtheria.

The mortality from diseases of this class, and from Diarrhœa and Enteritis is shown below :—

	1912.	1913.	Increase or Decrease.
Scarlet Fever .....	0	1	+ 7
Diphtheria and Membranous Croup	15	8	— 7
Enteric Fever .....	0	2	+ 2
Measles .....	0	10	+ 10
Whooping Cough .....	11	4	— 7
Diarrhœa and Enteritis.....	11	22	+ 11

The Librarian at the Free Library is supplied with a weekly list of the names and addresses of such persons as are known to be suffering from infectious disease. By this means the chances of infection being carried by books is minimised, and if any are in the household they are disinfected before being returned.



## HOSPITAL ACCOMMODATION.

The Hospital for Infectious Diseases is situated in Rochester, and is used jointly by the two Boroughs. It contains 80 beds, and has separate blocks for Scarlet Fever, Diphtheria, and Enteric Fever, together with observation wards for doubtful cases.

There is a separate building for the isolation of Small Pox.

No difficulty arises respecting the removal of cases, in marked contrast to the conditions which obtained not many years ago, when considerable persuasion was required in order to secure removal. Now, the desire for removal is so great that an invariable result of increased prevalence of disease is that from time to time delays in admission occur, owing to the beds being full, and when this point is reached preference is given to the most urgent cases, and to those where home isolation is unsatisfactory. I feel convinced that in the interests of the ratepayer, and of the public health, there will in the future have to be some modification of the conditions of admission into Isolation Hospitals. These institutions must remain limited in their utility under any circumstances, by the number of beds available. These cannot be multiplied to an indefinite extent, and the proper solution appears to me to be in a direction I have already indicated, viz., by the institution of a measure of bacteriological control as a preliminary to notification and admission.

At all costs overcrowding in an Isolation Hospital should be avoided.

The total percentage of cases admitted was 63·2.

## DISINFECTION.

The endeavour to kill infective material is a routine procedure in dealing with infectious disease.

Room fumigation is carried out after recovery or removal by means of Formalin Vapour or Sulphurous Acid Gas. Bedding and clothing are removed in a special van, where they are subjected to the action of current steam in a Thresh's Steam Disinfecting Apparatus. Compensation is paid if infected articles are destroyed. Suitable overalls are worn by the disinfectors, and details of the work will be found in the statement of the Inspector of Nuisances.

It is probable that in the future there may be a saving in this matter, because it is becoming increasingly evident that the infectivity of many diseases is less potent and of shorter duration than has hitherto been supposed, and further that this infectivity is more marked in the patient himself than in his clothing or surroundings. This applies especially in Diphtheria, where the real focus is the convalescent carrier, and where the object to be aimed at is his dis-

covery and elimination. In the investigation of all infectious diseases, the best plan is to concentrate inquiry on persons rather than on things, and such disinfection as is carried out should deal with objects most likely to be infected. These vary; in one case it may be the excreta, in another nasal discharge. Personally, I have great doubts as to the necessity or utility of room fumigation, believing that free ventilation, soap, water, and scrubbing would be equally efficacious.

## SCHOOLS AND INFECTIOUS DISEASE.

The Elementary Schools are regularly surveyed by me, as School Medical Officer. Such defects as are found are brought to the notice of the Education Committee. Generally speaking, the conditions are satisfactory, and the water supplied is good, and needs no comment.

It is in connection with infectious diseases that the schools are important. The mingling of children at schools is a factor in disseminating such disease, and in any outbreak the question of school or class-room distribution demands early investigation. In so far as the information respecting school incidence is prompt and accurate, so is the measure of control exercised by a health authority made more efficacious.

In my experience school closure is rarely necessary, and it is better to exclude the known cases, and to search for the contacts and exclude them also.

Notices of infectious disease are sent to the Head Teacher of the school attended, and all children from infected houses are excluded for definite periods.

Teachers are supplied with a printed schedule of the various infectious diseases, which shows the early symptoms, and appearances presented by children recently attacked, the mode of onset, the incubation period, the day and appearance of rash, and the period of isolation for (1) those attacked, (2) those who have been in contact with the patient.

## SCARLET FEVER.

The number of notifications received was 99; of these three were cases of mistaken diagnosis, reducing the total to 96.

During 1912 there were 207 cases.

The number of households affected was 87, and 65 cases were removed to the Isolation Hospital.

In St. Mary's Ward there were 18 cases, in Luton Ward 48, and in St. John's Ward 33.

Twenty-nine cases occurred in January and February, and 30 in October and November, the other parts of the year were comparatively free. The distribution is wide, and the chief factor in Scarlet Fever prevalence is the mild and unrecognised case. Another factor tending to the spread of infection—and this remark applies equally



to other infections—lies in the present day extension of facilities for its distribution. Cinema palaces, and other places of amusement, and public vehicles of all kinds are seldom free from children, and the effective ventilation of them all is the only possible means of prevention that can be carried out. Under present day conditions, I have little hope of the extinction of Scarlet Fever and similar diseases.

The following table gives details of Scarlet Fever in Chatham during the past ten years :—

YEAR.	Total No. of cases notified	No. under 5 Years.	Deaths registered.	Treated in Hospital.	Attack rate per 1,000 of Population.	Mortality per 1,000.	Percentage re-moved to Hospital
1904	61	21	1	47	1.5	.003	77
1905	42	8		32	1.02		71
1906	200	54	1	149	4.8	.002	75
1907	81	33	4	67	1.9	.009	83
1908	81	29		56	1.8		69
1908	87	31	4	63	1.9	.009	70
1910	37	5		30	0.8		81
1911	145	35	3	88	3.4	.007	60
1912	207	36		131	4.8		63
1913	96		1	65	2.2	.002	68

### DIPHTHERIA AND MEMBRANOUS CROUP.

There is nothing like the extensive prevalence of Diphtheria which obtained in 1912, but there are still a sufficient number of cases to call for continued vigilance, and to tax the resources of the Isolation Hospital.

The notifications received numbered 143, but three were cases of mistaken diagnosis, reducing them to 140.

There were eight deaths registered.

Three cases were “ carriers ” discovered by myself at school.

The numbers occurring in each locality were as follows :—

St. Mary's Ward .....	39
Luton Ward .....	52
St. John's Ward .....	49

The numbers affected at various ages were :—

Under 5 years .....	30
5 and under 15 years .....	101
15     ,,     25     ,,     .....	5
25     ,,     45     ,,     .....	4

Number of households affected, 123.

In the following table will be found the number of cases and deaths from Diphtheria during the past ten years :—

Year.	Cases Notified.	Deaths.	Death-rate per cent. of cases attacked.
1904.....	26	2	8
1905.....	25	2	8
1906.....	29	3	10
1907.....	30	4	13
1908.....	34	7	20
1909.....	65	16	23
1910.....	77	8	10
1911.....	74	5	6
1912.....	269	15	5
1913.....	139	8	5

The history of Diphtheria during 1913 is a sequel to the extensive outbreak of the latter part of 1912. By the end of December there was a considerable diminution in the numbers notified, and the epidemic by the middle of January, 1913, had ceased to be of a serious character. This result was brought about by two causes : one that the major incidence of the disease was confined to children of definite age groups in attendance at two schools, and that a rigorous exclusion of all sore throats was carried out. None of these sore throats were allowed to return to school until bacteriological examination proved them to be free from infection. The primary examination of these throats revealed that many of them were Diphtheria carriers.

The notifications received during each quarter of 1913 were :—

1st Quarter .....	32
2nd   ,, .....	20
3rd   ,, .....	18
4th   ,, .....	70

The increased incidence in the last quarter of 1913 differs materially from that of 1912. It is not confined to any particular school or age group, nor is it associated with any undue prevalence of Sore Throat at the schools.

Some of the reasons for the prevalence of diseases of this type I have already alluded to, but there are others which may be mentioned. There seems to be a lessened sense of responsibility with many parents, and in the course of inquiries it is often found that there have been antecedent cases of Sore Throat in the family, or that the cases notified have been ill for several days before medical advice has been sought.

The precautionary measures adopted are those which proved so successful in 1912, viz., the exclusion of Sore Throats from school, and the search for Diphtheria carriers.



Notices requesting the exclusion of all Sore Throats were sent to Head Teachers on November 24th, 1913, and they are not allowed to return to school until I have personally satisfied myself that they are free from infection.

Important factors in the control of Diphtheria exist in the use of Bacteriological tests for diagnosis, and of Antitoxic Serum for treatment.

The necessity for the first is emphasised by the fact that on the one hand many cases of Diphtheria are not diagnosed as such, and on the other hand some which are not Diphtheria are notified and sent to Hospital. Now, no case of Diphtheria occurs in a household without inconvenience and expense, not only to the parents, but to the Local Authority and the ratepayers. All children of school age must be excluded from school, incurring loss of grant, and if the case is sent to Hospital there is the expense of some weeks' treatment.

As regards the use of Antitoxin, its value is fully recognised. It diminishes the severity of an attack, it lessens the mortality, and it reduces the average stay of patients in Hospital, besides which subsequent complications are less frequent and severe. Its administration in any suspected case of Diphtheria is, in my opinion, a plain duty.

Particulars as to the use of Bacteriological tests I have already given.

Respecting the use of Antitoxin, out of the 140 cases notified, and assuming that 4,000 units is the minimum dose which should be administered, less than 25 per cent. were so treated prior to their admission to Hospital, or during their detention at home.

This is extremely unsatisfactory.

Antitoxin, which is expensive, is supplied by the Sanitary Authority free of charge at any hour of the night or day, and I am confident that its routine use in all cases would be fraught with the greatest benefit.

The truth of the matter lies in the fact that besides the cases of Diphtheria, in which the clinical symptoms are marked and unmistakable, there are a large number in which the symptoms are ill-defined, and it is amongst this class that mistakes in diagnosis occur. The only solution of the difficulty lies in the routine use of the two methods of Bacteriological diagnosis and Antitoxin treatment. A circular letter has been addressed to local medical practitioners requesting their co-operation in furthering these objects.

The slight delay which would occur would be counteracted by the regular use of Antitoxin, and in the event of a negative return, considerable expense would be saved to the ratepayers, and families freed from undue anxiety. Unless the facilities offered are more generally utilised in the future, definite restrictions will have to be placed on Hospital admission.

## ENTERIC FEVER.

The notifications numbered 8, and the deaths 2. Of suspected cases 9 were subjected to Bacteriological tests, and 8 were found to be free from the disease. In 2 cases there was ground for suspecting shell-fish gathered from the Medway to be the cause.

## ERYSIPELAS.

There were 30 cases notified, and one death.

## CEREBRO-SPINAL MENINGITIS AND POLIOMYELITIS.

These compulsorily notifiable diseases appear to be uncommon in this district. One notification of Poliomyelitis was received, but on inquiry the diagnosis could not be substantiated. The patient was a boy aged 4 years. The initial symptoms were indefinite, and of a mild character. No discharge from the nasal mucous membrane was obtainable, and at the end of 48 hours the fever had subsided, without any sign of paralysis.

## PULMONARY AND OTHER FORMS OF TUBERCULOSIS.

Deaths registered :—

Pulmonary Tuberculosis .....	52
Tubercular Meningitis.....	7
Other Tubercular Diseases .....	13

From Pulmonary Tuberculosis during the preceding 5 years the following deaths occurred :—

1908.....	51
1909.....	59
1910.....	50
1911.....	64
1912.....	60

Mortality, 1·2 per 1,000.

The number of cases notified was 106, apportioned as follows :—

Poor Law Cases .....	10
Hospital ,, .....	13
Private Practitioners' Cases .....	83

They were thus distributed :—

St. Mary's Ward .....	25
Luton ,, .....	40
St. John's ,, .....	28
Workhouse Infirmary .....	13



The age distribution was as follows :—

1 to 5 years .....	2
5 „ 15 „ .....	17
15 „ 25 „ .....	18
25 „ 35 „ .....	22
35 „ 45 „ .....	22
45 „ 55 „ .....	15
55 „ 65 „ .....	10

Of males there were 62, females 44.

### NON-PULMONARY TUBERCULOSIS.

Total notifications, 42, thus apportioned :—

Hospital Cases .....	31
Private Practitioners' Cases .....	11

Distribution :—

St. Mary's Ward .....	8
Luton „ .....	24
St. John's „ .....	10

Ages :—

Under 1 year .....	1
1 to 5 years .....	5
5 „ 15 „ .....	22
15 „ 25 „ .....	9
25 „ 35 „ .....	5

Males 23, females 19.

The majority of cases of Non-Pulmonary Tuberculosis were Glandular or joint affections.

Cervical or Axillary Glands .....	19
Joints .....	13
Peritoneum .....	4
Meninges .....	2
Other parts of body.....	6
Primary Visits to Pulmonary and Non-Pulmonary Cases .....	148
Subsequent Visits .....	69
Number of houses disinfected.....	42
„ „ cleansed .....	9

During the last five years an entirely new development has taken place in regard to Tuberculosis, beginning in 1908 with the compulsory notification of Pulmonary cases amongst the inmates of Poor Law Institutions, or under the care of District Medical Officers, and culminating in February, 1913, when all forms of Tuberculosis became compulsorily notifiable. Coincident with this development has been the passing of the National Insurance Act, which makes provision for the administration of sanatorium and other benefits.

With the actual treatment of Tuberculosis, County Areas and County Boroughs are chiefly concerned, and Chatham forms an integral part of the Kent County Council Area, the administration being under the control of the County Medical Officer.

In my Report for 1912 I was able to announce the outlines of the County Scheme of treatment. This scheme is gradually developing, and a Tuberculosis Dispensary for this district has been opened at Gillingham. The provisional arrangements of 1912 embraced a resolution to defer for 12 months the actual provision of Sanatorium and Hospital beds, and that period having expired, it has been decided to erect a central Sanatorium at Lenham for 100 beds, and to provide 75 Hospital beds at existing institutions. The Sanatorium will not be ready for occupation before 1915. There are now four Dispensaries in operation in the North Kent part of the County.

The functions of a Tuberculosis Dispensary were described in the 1912 Report, and the County Medical Officer has drawn up certain conditions for treatment, which may be briefly embodied. Admission will be on the recommendation of Medical Practitioners only, and attention will be given to the following groups of patients :—

1. Insured patients by arrangement between the Panel Doctor and the Tuberculosis Officer.
2. Non-insured persons.
  - (a) Private patients by doctors' recommendation.
  - (b) Poor Law patients by Poor Law Medical Officer.
  - (c) Cases sent by Medical Officers of Health.
  - (d) „ „ „ School Medical Officer.
  - (e) Contracts of insured patients referred by the Tuberculosis Officer.

The Sanitary Authority as such is only indirectly concerned with the treatment of existing diseases, but it is directly concerned with preventive measures. In the case of Tuberculosis, curative treatment must go hand in hand with preventive treatment, and it is difficult to say where one ends and the other begins; one essential to success lies in the harmonious co-operation of medical practitioners, Medical Officers of Health, and Tuberculosis Officers, and it appears to me that, with a common object in view, each will attack the problem from a different side, and in a manner that need not antagonise or clash with the methods of the co-worker.

All notifications come primarily to the Medical Officer of Health, and the procedure on receipt of one is to send an Inspector to visit the house, and to fill in a printed schedule of particulars relating to the patient, his family history, previous and present state of health, occupation, circumstances, particulars as to sanitary condition of house, and lists of contacts. The same Inspector keeps in touch with the cases throughout, and this I consider important. Leaflets



containing advice are given, and personal advice and encouragement in following out treatment is also offered. Sputum bottles are supplied, and disinfection and cleansing carried out as required. In sanitary houses are reported, and dealt with either by Sections 15 or 17 of the Housing, etc., Act, or without recourse to statutory notices. Under Article II. of the Domiciliary Treatment Order, 1912, Sub-section 7, it is incumbent on the medical practitioner carrying out the domiciliary treatment of insured persons to inform the Medical Officer of Health of any circumstances which may affect adversely the sanitary conditions under which the patient is living.

Change of abode, or death, is always followed by cleansing and disinfection of the premises. Patients and their friends are informed of the advantages offered by the Tuberculosis Dispensary, and with the concurrence of their doctors, a few avail themselves of these advantages. The examination of contacts with a view to the early detection of disease is a most important measure. The only condition required is the recommendation of a medical man, preferably the one in attendance at the house. Actually, very few of these contacts have presented themselves for examination, and in the future steps will have to be taken to secure a larger proportion of contact examinations.

With regard to the children attending at Elementary Schools, a register of children living in infected houses is kept, and arrangements have been made by which these children will attend at the Inspection Clinic from time to time, and cases who are ailing and delicate will be referred to the Tuberculosis Dispensary for advice and treatment. In observing the progress and incidence of a disease of this nature one is forcibly struck with the part that poverty and insanitation play in it. They are not only the most frequent causes of its beginning, but they foster its development, and over and over again is it evident that treatment by any or all agencies is of little avail if the evils of poverty and bad housing conditions continue. Good food and fresh air are equally necessary for prevention and cure.

Official agencies, limited in their scope and numbers, can only partially grapple with the problem, and for certain conditions the association of voluntary help, if organised on a basis and directed in a manner that would avoid overlapping and waste of effort, is very desirable.

The time has come when an After Care Committee should be formed in your district. Not much in the way of funds is either necessary or desirable, because the force should be moral rather than material, and the mere fact that such a Committee exists, and that it systematically visits, will have a good effect in many homes. It should be wide in its scope, and so far subject to official direction that the zeal and imperfect knowledge of the voluntary worker is directed into the right channels.

Out of the 106 cases of Pulmonary Tuberculosis notified during 1913--

13 cases were treated at a Sanatorium.  
 60 „ „ „ at Home.  
 14 „ „ „ in Infirmarys.  
 5 „ „ „ at Hospitals.  
 14 left the District, and no history obtainable.  
 37 cases died.  
 14 were stated to have resumed work.

### NON-NOTIFIABLE INFECTIOUS DISEASES.

The chief of these in point of probable fatality are Measles, Whooping Cough, Diarrhœa and Enteritis.

### MEASLES.

Information as to the prevalence of Measles in a district comes from two sources—the schools and the mortality returns. Each week, from every school department a return is sent by the Head Teacher to the Health Office, giving the names and addresses of children absent from school on the ground of Measles, etc. Visitation of the homes follows, advice and exclusion of children from infected houses.

The compulsory notification of this disease is suggested by some authorities, but for reasons stated in past Reports, I do not think this wise or necessary. The disease is highly infective, especially in the pre-eruptive stage. Common complications are Bronchitis and Pneumonia, and to these complications the majority of fatal cases are due. Without them, recovery would be the rule. Measles in epidemic form recurs every two or three years; it tends to increase in virulence, and as the last epidemic was in 1911, it is probable that there will be an early outbreak. The measures of prevention are outlined above, and in any case can only secure a partial exemption. Amongst the public much misconception exists, and the tendency is to regard Measles as a disease of slight importance, and to neglect not only precautions against its spread, but what is of far greater importance—precautions against its fatal complications. From 80 to 90 per cent. of fatal cases are due to Bronchitis or Pneumonia, and the commonsense method of dealing with cases of Measles is to at once put them to bed in a warm equable temperature, to call in a doctor, and to keep them there until he says they may get up. I am confident that such a policy would reduce the mortality very largely, and also the average duration of sickness.

Ten deaths were registered.



## WHOOPIING COUGH.

There were only 4 deaths from this cause, and the remarks made above under the head of Measles are equally applicable to Whooping Cough.

## DIARRHŒA AND ENTERITIS.

Under this heading are included deaths registered as Diarrhœa, Enteritis, and Gastritis.

The number registered was 22, as compared with 12 during 1912, and 58 during 1911. The largest proportion of deaths is always amongst infants, and the disease is the resultant of a mingling of various insanitary and social conditions, such as dirty unpaved yards, insufficient or unsatisfactory sanitary conveniences, defective scavenging, dirty, ill-ventilated and overcrowded houses, with restricted supplies of water, no food storage, intemperance and poverty, and in addition parental ignorance and neglect. Some or all of these causes are factors in producing infantile Diarrhœa, and are increasingly active when the weather is hot and dry, favourable to putrefaction and the development of bacteria.

Dirty surroundings and dirty households mean a foul atmosphere charged with infective material, trodden, blown in, or carried in by flies, poisoning both the air breathed and the food consumed by infants, and leading to numerous deaths which ought never to occur.

One other important factor contributory to Diarrhœal Mortality is neglect of breast-feeding.

The remedies are improved sanitation and housing, for which the Sanitary Authority can do much, combined with improved domestic management in its widest sense, which is a matter of training and education.

As shown elsewhere, the subject of housing and sanitation is receiving attention, and in addition, the Nurse employed under the Notification of Births Act, visits, gives practical advice, and leaves handbills containing instructions for the feeding and management of infants. An inspector is detailed for the special work of visiting courts, alleys, passages, yards, etc., to prevent accumulation of refuse, and to secure their cleanliness. Lists of stables are made, and notices issued for the removal of manure at least every seven days during the summer months.

## VITAL STATISTICS.

### POPULATION.

My estimate of the population to the middle of 1913 is 43,450.

The number of inhabited houses, as shown by the Rate Books, is 9,574. This shows a slight decrease from last year, and is due to

demolitions and reconstructions carried out under the Housing Acts. There is a demand for working class dwellings, particularly those suitable for men with 25s. a week or less.

The number of houses in the several Wards of the Borough is :—

St. Mary's Ward.....	2,048
St. John's     ,,     .....	2,991
Luton             ,,     .....	4,535
	<hr/>
Total.....	9,574

Average number of persons per house for whole district, 4·5.

## BIRTHS.

The total number of Births registered during 1913 was 1,133.

This total is made up as follows :—

Number registered in Chatham .....	1,109
Number occurring outside the Borough of persons belonging to it .....	39
	<hr/>
	1,148
Number in the Borough, but belonging to other localities .....	15
	<hr/>
Nett Total.....	1,133

Birth-rate, 26· per 1,000.

Of males there were 562, and of females 547. The illegitimate births numbered 53.

The following table shows the material increase of population, that is, the increase of births over deaths in each division of the Borough :—

	Births.	Deaths.	Number of Births over Deaths.
St. Mary's Ward .....	225	121	104
Luton             ,,     .....	568	215	353
St. John's       ,,     .....	316	116	200
	<hr/>	<hr/>	<hr/>
	1,109	452	657
Deaths in Institutions.....		96	96
		<hr/>	<hr/>
		548	561



The nett result is an increase of births over deaths of 561.

The above figures deal with births and deaths actually registered in the Borough, and do not include transfers.

## DEATHS.

The mortality returns are an important indication of the sanitary state of a district, but returns of sickness are better. There are many cases of sickness which recover, and apart from sanitation, the mortality at different age periods is subject to much variation, and the death-rate of every community is influenced by the number of persons living at different age groups. A large proportion of very young or very old people tends to raise the death-rate, whilst the presence of large numbers of persons from 20 to 30 tends to lower it.

All deaths occurring in the Borough are registered locally, but arrangements are in force whereby deaths are allocated to the area in which the persons dying properly belong. Through the agency of the Registrar-General's Department, these transferable deaths are forwarded to the County Medical Officers of Health, who transmit them to Local Medical Officers for inclusion in their returns. By this means greater accuracy is secured.

By means of these corrections the nett total of registered deaths belonging to Chatham for the year 1913 is 574. The term "residents" is used to indicate persons dying outside the district, but belonging to it, and "non-residents" are persons who have died in Chatham, but belong elsewhere. With few exceptions, the deaths of "non-residents" occurred in the Medway Union Workhouse, whilst the deaths of "residents" were in St. Bartholomew's Hospital, St. William's Hospital, Fort Pitt Military Hospital—all in Rochester, the Royal Naval Hospital, and Military Families' Hospital in Gillingham, and in addition to these local institutions, 26 deaths took place in other parts of the County, several being in the County Lunatic Asylum, and in London Hospitals.

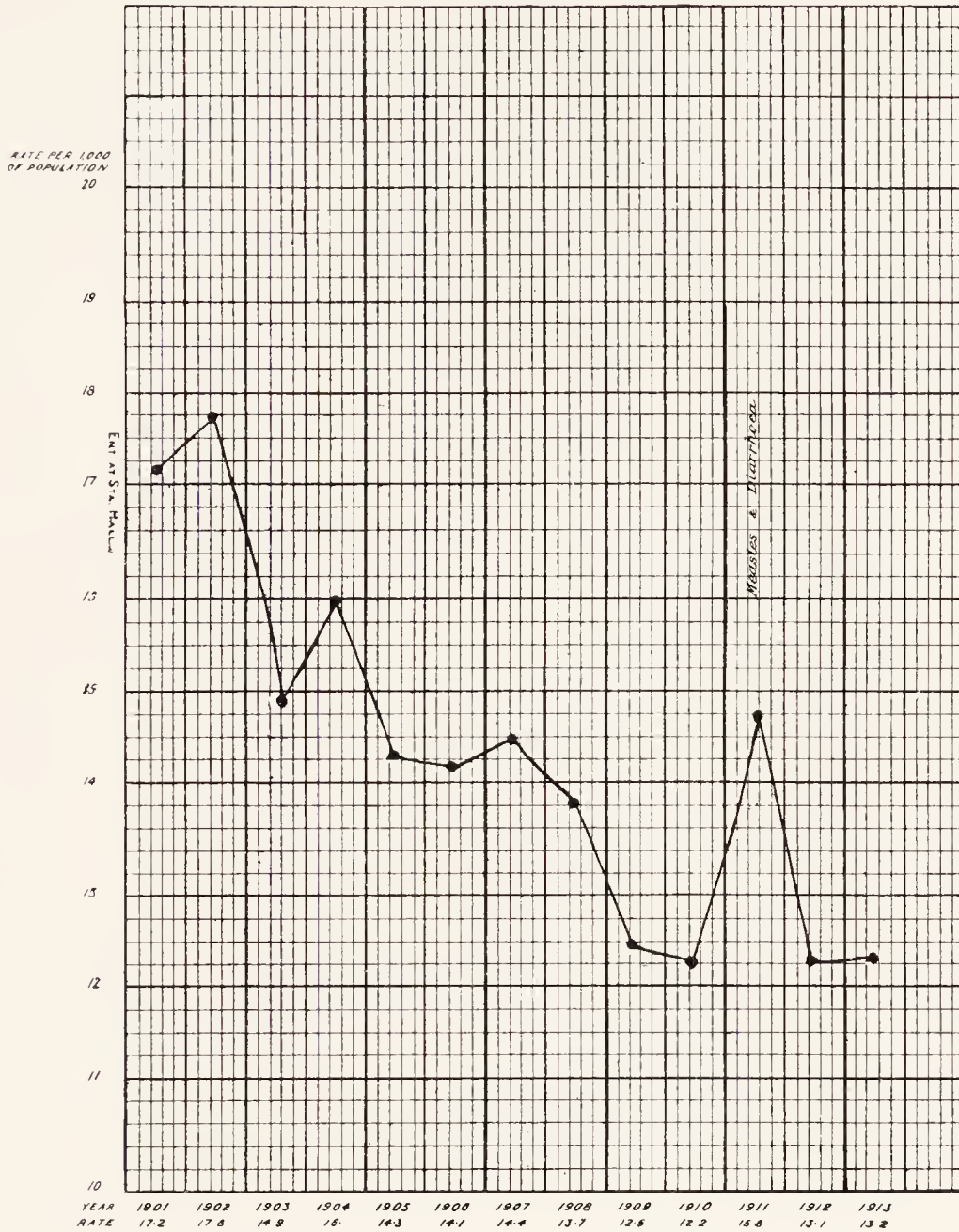
The total number of deaths of residents occurring outside the district was 65, and of non-residents occurring in the district, 82.

Table I. shows the vital statistics of the whole district during 1913 and five previous years.

The rate of mortality for 1913 is 13·2 per 1,000.

What is known as the corrected death-rate is the one which would be recorded if the age and sex distribution of the district were the same as that of the whole country. The factor for correction of Chatham is 1·0055, which scarcely alters the rate given.

The following chart shows in graphic form the gradual decline in the death-rate of Chatham during the series of years 1900 to 1913 :





The following Table shows the mortality in England and Wales as compared with Chatham during 1913 :—

	Annual Rates per 1,000 living.		Deaths under 1 Year to every 1,000 Births.
	Births.	Deaths.	
England and Wales ... ..	23'9	13'4	109
95 Great Towns ... ..	25'1	14'7	116
145 Smaller Towns ... ..	23'9	13'	112
England and Wales, less 241 Towns ...	22'2	12'1	96
Chatham ... ..	26'	13'2	103

The Ages at which deaths occurred were as follows :—

Under 1 Year ... ..	117
1 and under 5 Years ... ..	46
5 „ „ 15 „ ... ..	22
15 „ „ 25 „ ... ..	24
25 „ „ 65 „ ... ..	196
65 „ upwards ... ..	174

Including transferable deaths, the numbers registered during each quarter of the year were :—

First Quarter .....	143
Second „ .....	148
Third „ .....	125
Fourth „ .....	158

The number of deaths registered in each Ward were :—

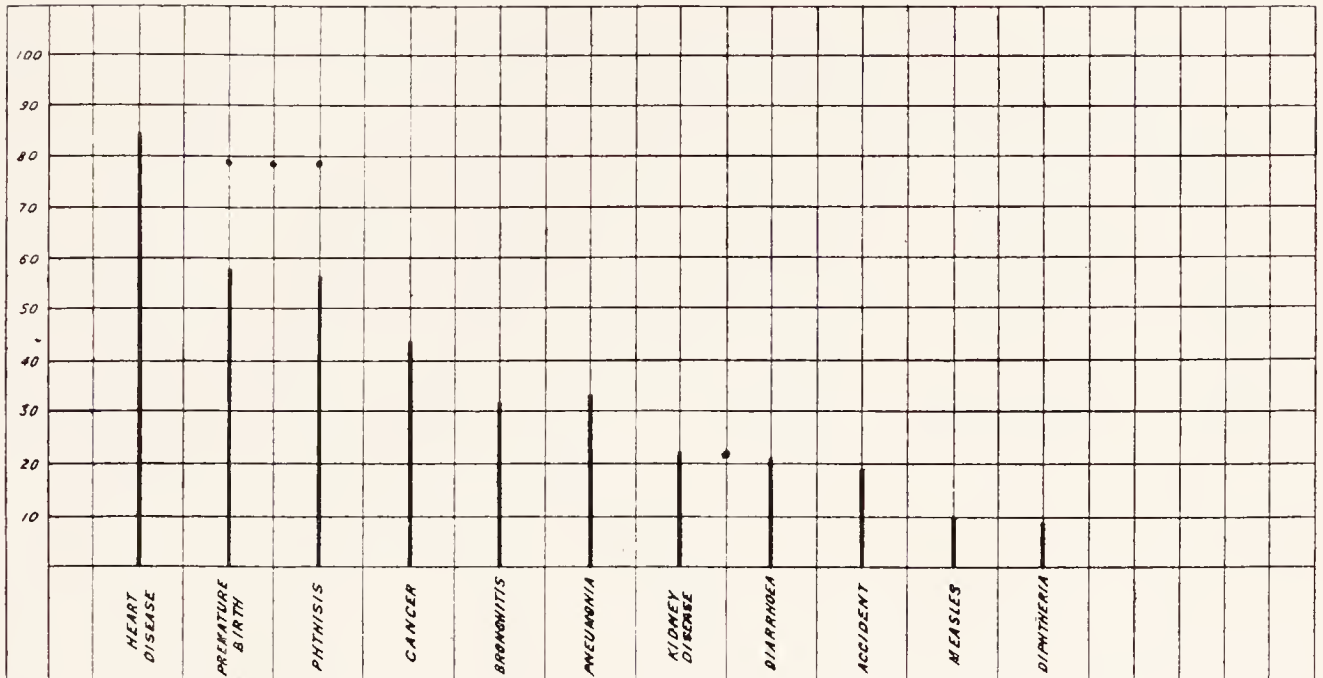
St. Mary's Ward.....	121
Luton „ .....	215
St. John's „ .....	116

SEX.—Amongst males there were 310 deaths, and amongst females, 264.

## ILLEGITIMATE BIRTHS AND DEATHS.

The births of illegitimate children numbered 53, and there were 9 deaths.

### Comparative view of principal causes of death during 1913.



## INFANTILE MORTALITY.

Total deaths under 1 year .....	123
Rate per 1,000 nett births .....	103

Every year this subject occupies a prominent position in a Medical Officer's Report, and it is a problem on which much time, thought and energy are expended with very varying success. Whilst favourable climatic conditions tend to lessen the mortality, and to account for seasonal variations, its chief causes lie in complex social and economic conditions existing mainly in urban districts, and in the investigation and improvement of these conditions rests the hope of diminution of the excessive mortality amongst infants.

The records of the last few years show a decline, and to quote from the preface to the 2nd Report on Infant and Child Mortality by the Medical Officer of the Local Government Board, this decline "can be claimed, with high probability, to be the result of improved sanitary and housing conditions, of more efficient municipal and domestic cleanliness, of education in hygiene, of increased sobriety of the population, and of the widespread awakening to the national importance of child mortality."

The crying evil in connection with many of these deaths is that they ought never to occur, in other words, they could be prevented, and in the poorer quarters especially, one cannot avoid the conclusion that



young children are not receiving that intelligent attention and care which they require, and in addition are exposed to risks from scanty clothing and improper food.

Many suggestions have been made, and many societies formed, with the object of combating the prevailing ignorance respecting infant management, and the scope of the work should include the expectant mother as well as the new-born child.

Premature birth and congenital defect account for 50 per cent. of the infantile mortality of Chatham, and in this particular group the local death-rate is above the average of urban districts.

Investigation does not show any material preponderance of premature birth in one part of the Borough as compared with another, and I am unable to allege any satisfactory reason. Some of the deaths from this class of disease are due to pre-natal conditions, others to want of care after birth, others such as Atrophy, Marasmus, Debility are labels for cases requiring further inquiry; in other words, as the real reasons for these conditions come to be better understood so a greater accuracy in classification will take place.

One branch of administrative work for the reduction of infant mortality is carried out under the Notification of Births Act, 1907.

A Nurse is appointed for the sole duty of carrying out its provisions, and she acts strictly in accordance with the instructions of your Medical Officer.

The total number of births registered as occurring in the district were 1,109, and under the Act 931 were notified, or 84 per cent.

Of this number there were notified by—

Midwives .....	729
Doctors .....	202
	— 931
Total number of mothers visited .....	692
„ „ visits paid by Nurse.....	3,016
Number of breast-fed children .....	654
„ bottle-fed children .....	38
Defective addresses .....	34
Changed „ .....	17
Refused admission .....	2
Number of houses clean .....	402
„ „ fairly clean .....	243
„ „ dirty .....	47
Number improved during visitation .....	63
Number of still-born children .....	62
„ deaths during Nurse's visits ...	41
„ doctors' cases notified but not visited .....	158

Of the 41 deaths—

20 died during the first week.

12 „ between the second and fourth weeks.

9 „ „ fourth „ sixth „

Mothers employed, 79—

(a) Outworkers .....	36
(b) Factory .....	12
(c) Hawkers .....	12
(d) Charwomen .....	8
(e) Various .....	11

I regard this Act as of very great value, especially in the promotion of breast-feeding, although I fear that the above figures are somewhat misleading, because directly the mother begins her ordinary habits of life, there is a tendency to discard the breast in favour of the bottle. Another valuable aspect of the work is that the dirty condition of many homes is brought under the notice of the Health Department, an Inspector is sent to visit, and repairs and cleansing are effected.

In connection with infant welfare voluntary help, rightly directed, would be of great service.

### HEART DISEASES.

Under this head is included diseases of the blood vessels and cerebral embolism.

The deaths numbered 87, as against 91, 108, and 115 during the three previous years.

### CANCER.

Cancer and other forms of malignant disease caused 44 deaths.

### DEATHS FROM VIOLENCE.

From accidents there were 19 deaths, and 5 from suicide.

Beyond those recorded there has been no excessive prevalence of any other form of disease, nor have there been any outbreaks of food poisoning.

## **FACTORY AND WORKSHOP ACT, 1901.**

The above Act states in Section 132 that the Medical Officer of Health shall, in his Annual Report, include an account of the administration of the Act in workshops and workplaces.

A table issued by the Home Office, giving such particulars as lend themselves to statistical treatment, has been filled in, and is appended to the Report.



All District Councils have duties in respect to factories, workshops, and workplaces.

With regard to Factories these duties are limited. There are some special duties in regard to bakehouses and domestic factories, and the chief sanitary requirement is the enforcement of provision of suitable and sufficient sanitary conveniences (Section 22, Public Health Amendment Act, 1890, and Section 38, Public Health Act, 1875).

Respecting Workshops and Workplaces, the duties are important, and are as follows :—

1. Sanitary conditions of Workshops and Workplaces, including :—

- (a) Cleanliness.
- (b) Air space.
- (c) Ventilation.
- (d) Drainage of floors where wet processes are carried on.
- (e) Provision of suitable and sufficient sanitary accommodation.

2. Special sanitary provisions for Bakehouses.

3. The prevention of home-work being carried on in dwellings which are injurious to the health of the workers through overcrowding, want of ventilation, or other sanitary defects, or in dwellings in which notifiable infectious disease exists.

4. The keeping of lists of outworkers in certain branches of industry, which are furnished by employers, and the transmission of the name and place of any such outworker to the Council of the district in which he resides.

5. Keeping a register of workshops.

Should any Factory Inspector discover any defect remediable under the Public Health Act, but not under the Factory Act, it is his duty to inform the Council, who investigate, remedy and report the result of their action.

## HOME-WORK.

The control of home-work is one of the most important duties under the Act. Home-work is carried on by what are known as “outworkers,” and they represent a class of the population little able to look after their own interests, performing their work in the poorest of dwellings, and under conditions which, in the interests of public health, need careful supervision.

The majority of outworkers are females, they are mostly occupied in the making of wearing apparel, and they do the work in order to supplement other sources of income. The earnings are very small,

and the time given to the work prevents proper attention being given to domestic matters, such as the care of the household and the family.

It is the duty of employers to submit twice yearly revised lists of outworkers, their addresses, and character of employment, and these are visited by an Inspector to see that the provisions of the Act are being observed. These provisions aim at the prevention of home-work in dwellings, which are injurious to the health of the workers, through overcrowding, want of ventilation, or other insanitary conditions, and in premises where dangerous infectious disease exists.

The National Insurance Act has had the effect of reducing the number of outworkers.

The largest number of them are wives of Royal Marines. Particulars as to visits, etc., appear in the table.

### BAKEHOUSES.

The control of Bakehouses is carried out under the Public Health Acts, and under Sections 97 to 102 of the Factory and Workshop Act.

Bakehouses are either factories or workshops according as mechanical power is or is not used in the process of breadmaking.

They are thus subject to the general provisions of the Act, and in addition the special regulations require that closets must not communicate with, nor must there be any drains opening into a bakehouse, and the cistern supplying water to a bakehouse must be separate and distinct from the w.c. cistern. The inside walls and ceilings of bakehouses must be limewashed or painted with oil and varnished, and the limewashing and cleansing of paint must be done every six months. No sleeping place is permitted on the same floor as a bakehouse, unless constructed according to the requirements of the Act.

The number of bakehouses is :—

Workshop Bakehouses.....	24
Factory           ,,       .....	3
Underground   ,,       .....	10

Notices and intimations served, 11.



# Factories, Workshops, Workplaces and Homework.

## BOROUGH OF CHATHAM.

### 1.—Inspection.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries) ... ..	20	0	
Workshops (including Workshop Laundries) ... ..	157	8	
Workplaces (other than Outworkers' premises included in Part 3 of this Report) ... ..	21	4	
Total ... ..	198	12	

### 2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—				
Want of cleanliness ... ..	7	5		
Want of ventilation ... ..	0	0		
Overcrowding ... ..	0	0		
Want of drainage of floors ... ..	0	0		
Other nuisances .. ..	0	0		
Sanitary accommodation { insufficient ... ..	0	0		
unsuitable or defective ... ..	5	4		
not separate for sexes ... ..	0	0		
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouses ...	0	0		
Breach of special sanitary requirements for bakehouses	0	0		
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report) ...	0	0		
Total ... ..	12	9		

**3.—Homework.**

Nature of Work.	Outworkers' Lists.						Notices served on Occupiers as to keeping or sending lists.	Outwork in infected premises.	
	Lists received from employers.							Instances.	Orders made.
	Sending twice in the year.			Sending once in the year.					
	Lists.	Contractors.	Workmen.	Lists.	Contractors.	Workmen.			
Wearing Apparel— Making, &c. ... ..	22	2	1013	3	1	8	13	14	14
Total ... ..	22	2	1013	3	1	8	13	14	14

**4.—Registered Workshops.**

Workshops on the Register at the end of the year.	Number.
Tenement Workshops ... ..	0
Workshop Bakehouses ... ..	24
Domestic Workshops ... ..	29
Laundries (Workshop) ... ..	6
Other Workshops ... ..	224
Total number of Workshops on Register ... ..	283

**5.—Other Matters.**

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Acts ... ..	0
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts :—	
Notified by H.M. Inspector ... ..	7
Reports (of action taken) sent to H.M. Inspector .. ..	0
Other ... ..	0
Underground Bakehouses :—	
Certificates granted during the year ... ..	0
In use at the end of the year ... ..	3

## RAINFALL IN 1913.

Taken at Luton Waterworks by Mr. Coles Finch.

Month.	Total depth in inches.
January .....	3·32
February .....	·69
March .....	2·30
April .....	2·79
May .....	1·38
June .....	·30
July .....	2·40
August .....	1·05
September .....	1·60
October .....	4·14
November .....	3·57
December .....	·87
	<hr/>
Total .....	24·41





